

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 2, 3, 5, 6, 8, 13, 14, 16 and 20 have been amended.

In the Office Action mailed January 11, 2005, the Examiner noted that claims 1-25 were pending, claims 9-12, 19, 21, 23 and 25 have been withdrawn from consideration, allowed claims 1, 7, 8, 14, 15, 17, 18, 22, and 24, and rejected claims 2 - 6, 13, 16 and 20. In view of the foregoing, claims 1-8, 13-18, 20, 22 and 24 remain pending for reconsideration which is requested. It is believed that no new matter has been added by the amendments. The Examiner's rejections are traversed below.

REJECTION UNDER 35 U.S.C. §112:

Claims 2- 6 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. This rejection is traversed and reconsideration is requested.

It is submitted that claims 2 - 6 as amended meet the requirements of 35 U.S.C. § 112, second paragraph. It is believed that no new matter has been added by the amendments. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §101:

Claim 20 has been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. This rejection is traversed and reconsideration is requested.

It is submitted that claim 20 as amended meets the requirements of 35 U.S.C. § 101 as patentable subject matter. It is believed that no new matter has been added by the amendment. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §102:

Claim 16 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Hongo et al., U.S. Patent Number 4,903,316, hereafter referred to as "Hongo". This rejection is traversed and reconsideration is requested.

This rejection is respectfully traversed because Hongo does not teach or suggest:

a determination device determining whether a target pixel is a background based on complexity of a pattern in a vicinal area of a

target pixel ~~in~~ during a local binarization of a multiple-valued image or a binarization device subsequently performing the a local binarization of the target pixel based on a determination result of said determination device.

In the rejection of claim 16, the Examiner relies upon Hongo, column 2, line 19-25 which states: "the binarization is performed on the basis of a judgment as to whether the target pixel is a background pixel or not which is performed through a comparison of a target pixel with surrounding pixels, and a judgment as to how background pixel's and line pixels are arranged in the surroundings of the target pixels." However, Hongo fails to teach or suggest the features of a determining device determining whether a targeted pixel is a background pixel **during a first binarization** and a **subsequent binarization** of the targeted pixel based upon that determination as disclosed in claim 16.

Claim 16 has been amended to emphasize the patentable subject matter of the claim. It is believed that no new matter is added by the amendments. In light of the amendment to claim 16, the applicant respectfully requests reconsideration of the 35 U.S.C. § 102(b) rejection.

Claim 13 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Tanioka et al., U.S. Patent Number 5,153,925, hereafter referred to as "Tanioka". This rejection is traversed and reconsideration is requested.

This rejection is respectfully traversed because Tanioka does not teach or suggest

a first binarization device performing a local binarization on a multiple-valued image and a second binarization device performing local binarization again on ~~a pixel-regarded-pixels which are~~ determined as a-white pixel-pixels in a vicinal area of a target pixel when the target pixel is ~~regarded-determined~~ as a white pixel in-by the local binarization performed by said first binarization device.

In the rejection of claim 13, the Examiner relies upon Tanioka, column 2, lines 19-26, which states in part: "first binarization means for binarizing data of pixels . . . second binarizing means for binarizing the image input data . . . and selecting means for selecting one of the first and second binarizing means in accordance with whether the image input data indicates an edged portion or not." However, Tanioka fails to teach or suggest the features of claim 13 as disclosed above. Tanioka binarizes a targeted pixel twice and chooses whichever respective image it believes is most accurate. Claim 13 discloses an image processing apparatus which performs a second binarization on pixels "which are determined as a-white pixel-pixels in a vicinal area of a target pixel when the target pixel is ~~regarded-determined~~ as a white pixel in-by the local binarization performed by said first binarization device". Thus, as the Examiner noted

on page 4, line 20 of the Office Action, Tanioka will always perform multiple binarizations of the targeted pixel whereas claim 13 discloses an apparatus which will binarize a targeted pixel multiple times if it is determined to be white.

Claim 13 has been amended to emphasize the patentable subject matter of the claim. It is believed that no new matter is added by the amendments. In light of the amendment to claim 13, the applicant respectfully requests reconsideration of the 35 U.S.C. § 102(b) rejection.

Claim 13 was rejected under 35 U.S.C. § 102(e) as being anticipated by Imaizumi et al., U.S. Patent Number 6,633,406, hereafter referred to as "Imaizumi". This rejection is traversed and reconsideration is requested.

This rejection is respectfully traversed because Imaizumi does not teach or suggest

a first binarization device performing a local binarization on a multiple-valued image and a second binarization device performing local binarization again on ~~a pixel~~ regarded pixels which are determined as a white pixel ~~pixels~~ in a vicinal area of a target pixel when the target pixel is ~~regarded~~ determined as a white pixel ~~in-by~~ the local binarization performed by said first binarization device.

In the rejection of claim 13, the Examiner relies upon Imaizumi, column 3, lines 24-31, which states in part: "a first binarizing circuit which binarizes the image data received by the receiving unit . . . a second binarizing circuit which binarizes the image data . . . according to a second method that is different from the first method". However, Imaizumi fails to teach or suggest the features of claim 13 as disclosed above. Claim 13 discloses an image processing apparatus which performs a second binarization on pixels "which are determined as a white pixel ~~pixels~~ in a vicinal area of a target pixel when the target pixel is ~~regarded~~ determined as a white pixel ~~in-by~~ the local binarization performed by said first binarization device". Thus, as the Examiner noted on page 5, lines 13-14 of the Office Action, Imaizumi will always perform multiple binarizations of the targeted pixel whereas claim 13 discloses an apparatus which will binarize a targeted pixel multiple times if it is determined to be white.

Claim 13 has been amended to emphasize the patentable subject matter of the claim. It is believed that no new matter is added by the amendments. In light of the amendment to claim 13, the applicant respectfully requests reconsideration of the 35 U.S.C. § 102(e) rejection.

CONCLUSION

It is submitted that the claims satisfy the requirements of 35 U.S.C. §§ 101, 102 and 112. It is also submitted that claims 1, 7, 8, 14, 15, 17, 18, 22, and 24 should continue to be allowable. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. Thus, there being no

Serial No. 09/917,748

further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. An early Notice of Allowance is requested.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:



By:



J. Randall Beckers
Registration No. 30,358

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501